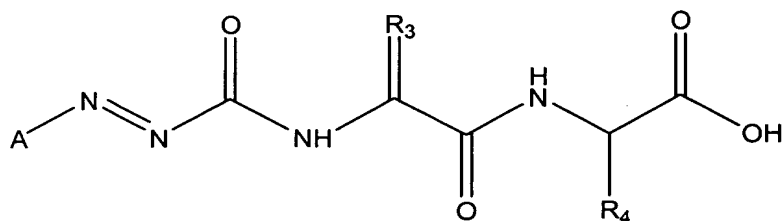
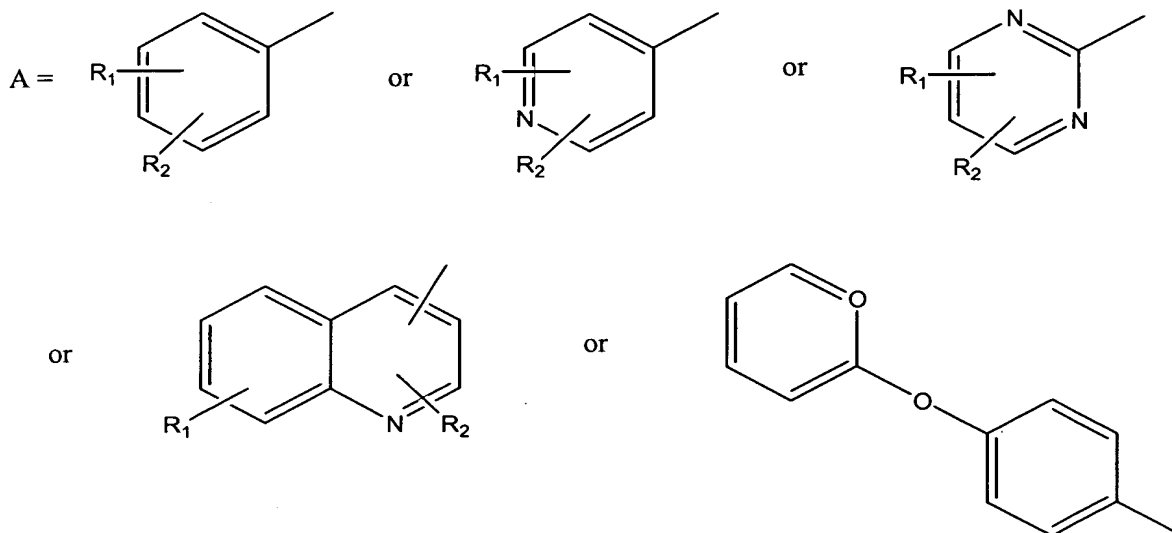


## IN THE CLAIMS

1. (currently amended) A compound with the following formula (I):



in which wherein:



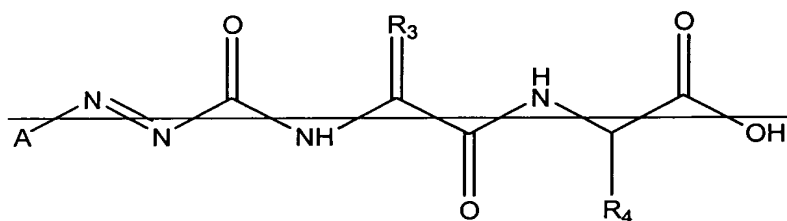
• R<sub>1</sub> and R<sub>2</sub> may be the same or different and are H, -CH<sub>3</sub>, -CH(CH<sub>3</sub>)<sub>2</sub>, -OCH<sub>3</sub>, -Cl, -CF<sub>3</sub>, -OCF<sub>3</sub>, -SCH<sub>3</sub>;

• R<sub>3</sub> is an amino acid radical hydrolysable by a carboxypeptidase A; and

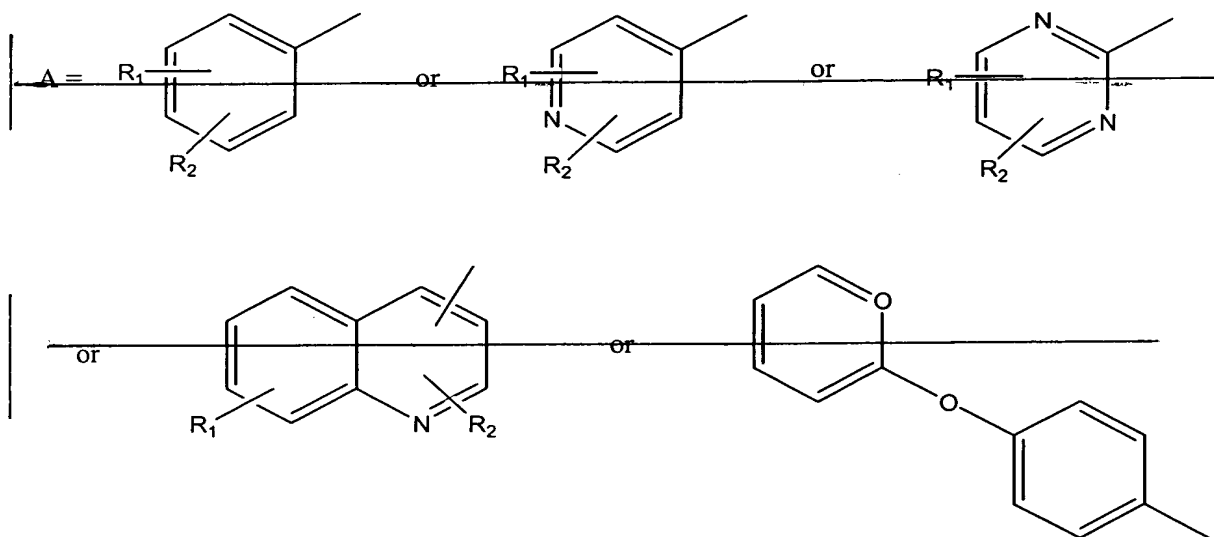
• R<sub>4</sub> is a basic amino acid radical.

2. (currently amended) A compound according to claim 1, ~~wherein with the following formula~~

(H):



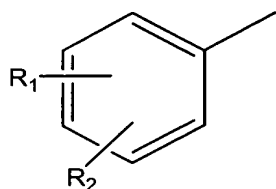
in which:



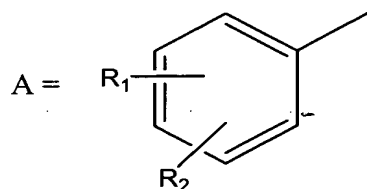
- R<sub>1</sub>, R<sub>2</sub> = H, CH<sub>3</sub>, CH(CH<sub>3</sub>)<sub>2</sub>, OCH<sub>3</sub>, Cl, CF<sub>3</sub>, OCF<sub>3</sub>, SCH<sub>3</sub>;
- R<sub>3</sub> is a hydrophobic amino acid radical; and
- R<sub>4</sub> is an arginine or lysine radical.

3. (currently amended) A compound according to claim 1 ~~or claim 2~~, characterized in that wherein R<sub>1</sub> is= H and R<sub>2</sub> is= -S-CH<sub>3</sub>.
4. (currently amended) A compound according to claim 1 ~~or claim 3~~, characterized in that wherein R<sub>3</sub> is selected from the following amino acids group consisting of:
- ~~Tyrosine:~~ tyrosine;
  - ~~phenylalanine;~~
  - ~~alanine;~~
  - ~~valine;~~
  - ~~leucine;~~
  - ~~isoleucine; and~~
  - ~~phenylglycine.~~
5. (currently amended) A compound according to claim 1 ~~or claim 3~~, characterized in that wherein R<sub>3</sub> represents is phenylalanine.
6. (currently amended) A compound according to claim 1 ~~or claim 3~~, characterized in that wherein R<sub>3</sub> is represents phenylalanine or tyrosine and R<sub>4</sub> is represents arginine or lysine.
7. (currently amended) A compound according to claim 1 ~~or claim 3~~, characterized in that wherein R<sub>3</sub> is represents tyrosine.
8. (currently amended) A compound according to claim 1, characterized in that wherein R<sub>1</sub> is selected from the group consisting of: -H and -CH<sub>3</sub>, and R<sub>2</sub> is selected from the group consisting of CH<sub>3</sub>, O-CH<sub>3</sub> and -S-CH<sub>3</sub>.

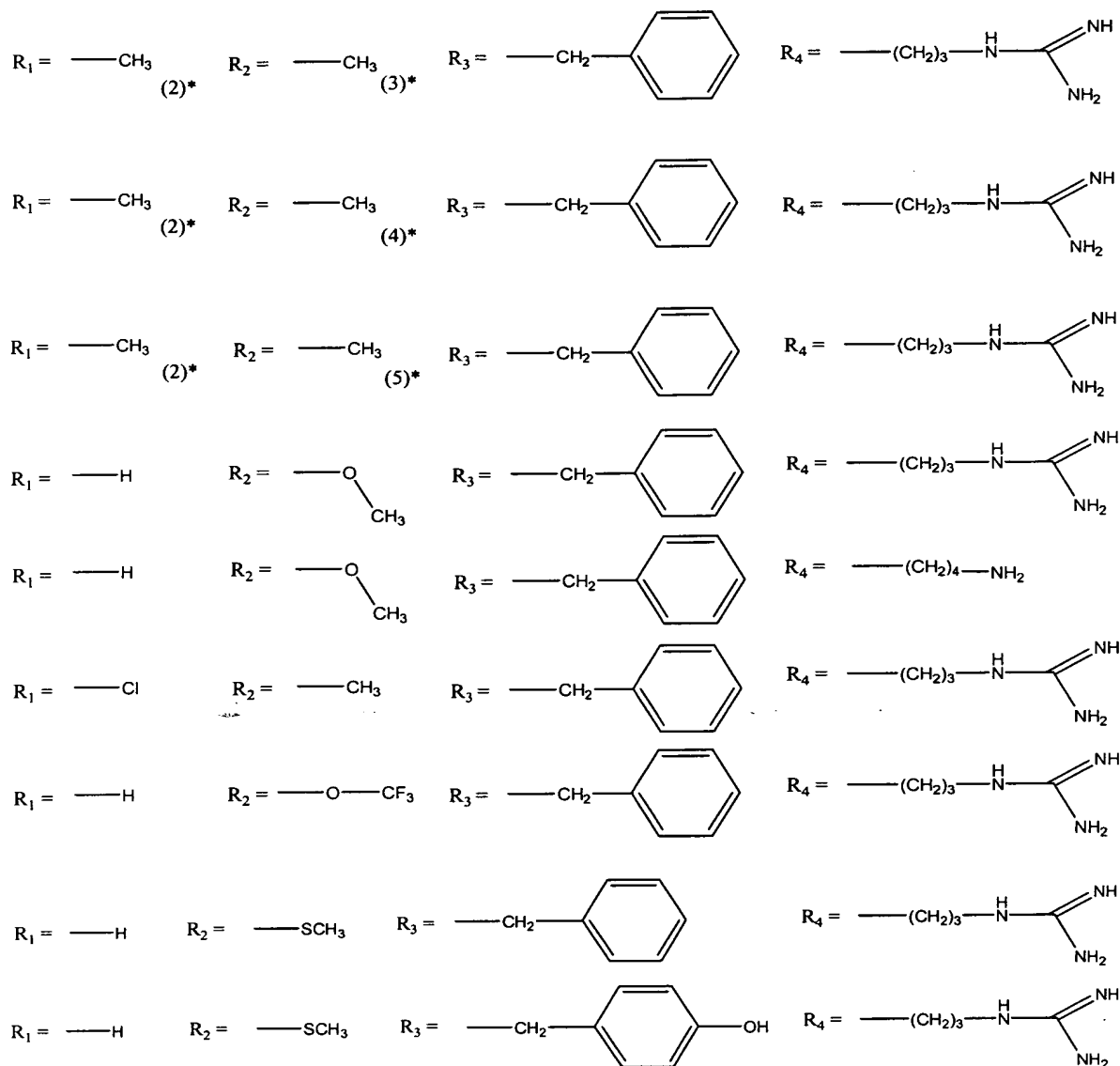
9. (currently amended) A compound according to ~~any one of claims 1 to 8, characterized in that~~  
claim 1, wherein A is:



10. (currently amended) A compound according to claim 1 ~~with formula (I), in which~~wherein:



- and wherein R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub> and R<sub>4</sub> are said compound being selected from the group  
constituted by the following compounds in which:



wherein\* the numbers in brackets determining designated with an asterix determine the position of the methyl groups on the phenyl radical.

11. (currently amended) A compound according to claim 1, ~~characterized in that it is 4-MTPAFYR~~ wherein said compound is (4-methylthiophenylazofornyltyrosine arginine).

12. (currently amended) A method for assaying the activity of a carboxypeptidase N or a carboxypeptidase U in a biological sample, in which:

- said sample is brought into contact with a compound with formula (I) according to claim 1 ~~any one of claims 1 to 11~~, and with a carboxypeptidase A, under conditions that allow hydrolysis of the sample; and

- the reduction in coloration of the sample containing the substrate with formula (I) and carboxypeptidase A is measured, resulting from double hydrolysis of the substrate with formula (I) by the CPN or CPU of the sample and by CPA.

13. (original) A method according to claim 12, characterized in that  $R_1 = H$  and  $R_2 = -S-CH_3$ .

14. (currently amended) A method according to claim 12 ~~or claim 13~~, characterized in that  $R_4$  is an arginine or lysine radical.

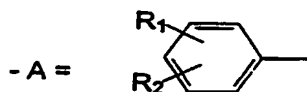
15. (currently amended) A method according to claim 12 ~~or claim 13~~, characterized in that the substrate is a compound with formula (I) in which  $R_3$  is selected from the following amino acid radicals:

- tyrosine;
- phenylalanine;
- alanine;
- valine;
- leucine;
- isoleucine;
- phenylglycine.

16. (currently amended) A method according to claim 12 ~~one of claims 12 to 15~~, characterized in that  $R_3$  is tyrosine.

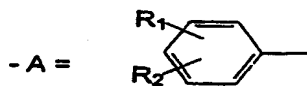
17. (currently amended) A method according to claim 12 ~~claims 12 to 15~~, characterized in that the substrate is a compound with formula (I), in which  $R_3$  represents phenylalanine.

18. (currently amended) A method according to claim 12~~claims 12 to 15~~, characterized in that the substrate is a compound with formula (I) in which  $R_3$  represents phenylalanine and  $R_4$  represents arginine or lysine.
19. (currently amended) A method according to claim 12~~any one of claims 21 to 18~~, characterized in that the substrate is a compound with formula (I) in which  $R_1$  is selected from  $-H$  and  $-CH_3$ , and  $R_2$  is selected from  $CH_3$ ,  $O-CH_3$  and  $-S-CH_3$ .
20. (original) A method according to claim 12, characterized in that the substrate is a compound with formula (I) in which:

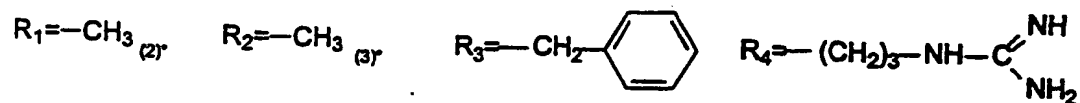


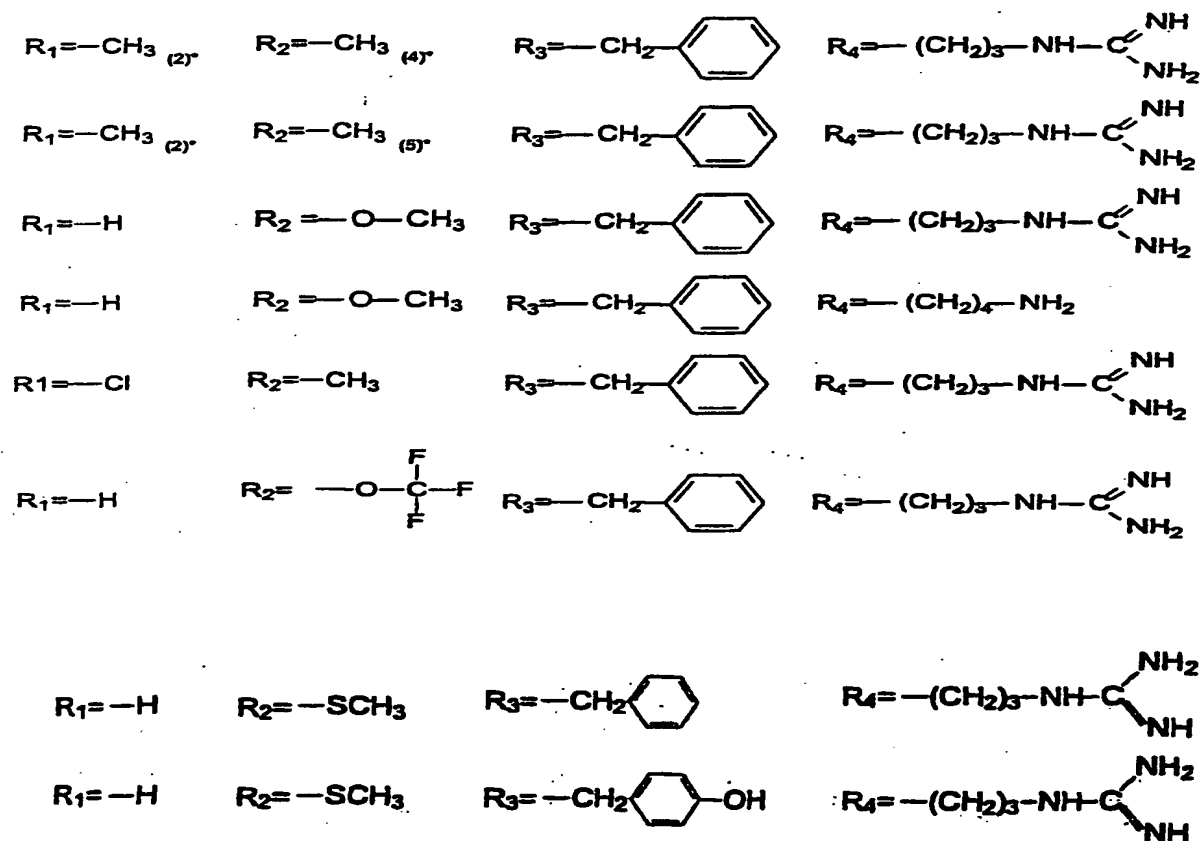
in which:

- $R_1, R_2 = H, -CH_3, -CH(CH_3)_2, -OCH_3, -Cl, -CF_3, -OCF_3, -SCH_3$ ;
  - $R_3 =$  an amino acid radical hydrolysable by a carboxypeptidase A;
  - $R_4 =$  a basic amino acid radical.
21. (original) A method according to claim 21, characterized in that the substrate is a compound with formula (I) in which:



said compound being selected from the group constituted by the following compounds:





\*the numbers in brackets determining the position of the methyl groups on the phenyl radical.

22. (currently amended) A method according to claim 12 ~~any one of claims 12, 13, 15, 20 or 21,~~  
in which the compound with formula (I) is 4-MTPAFYR (4-methylthiophenylazoformyltyrosine arginine).
23. (currently amended) A method according to claim 12 ~~any one of claims 12 to 22,~~  
characterized in that the optical density of the mixture is measured without adding CPA,  
then after adding CPA.



24. (currently amended) A method according to claim 12~~any one of claims 12 to 23~~, characterized in that the measured decrease in coloration is compared with values on a calibration curve.
25. (currently amended) A method according to claim 12~~any one of claims 12 to 24~~, characterized in that the sample is a blood sample.
26. (original) A method according to claim 25, characterized in that the sample is plasma.
27. (currently amended) A method according to claim 12~~any one of claims 12 to 26~~, characterized in that the CPA is pancreatic CPA.
28. (currently amended) A method according to claim 12~~any one of claims 12 to 27~~, characterized in that the test sample is brought into the presence of an activator buffer for the time necessary to obtain activation of the carboxypeptidase U the activity of which is to be measured, then into the presence of a protease serine inhibitor.
29. (original) A method according to claim 28, characterized in that the substrate with formula (I) is added at the same time as the activator buffer, or simultaneously or immediately after the serine protease inhibitor.
30. (original) A method according to claim 28, characterized in that activation is carried out using the thrombin/thrombomodulin complex route.
31. (original) A method for assaying the activity of the constitutional CPN or CPU of a sample and that of the activatable CPN or CPU of the same sample, characterized in that the hydrolysis activity of the sample on a sample with formula (I) is compared after bringing the sample into the presence of an activator buffer, if necessary for the time necessary to obtain activation of the carboxypeptidase U the activity of which is to be measured, then into the presence of a protease serine inhibitor, the observed hydrolysis activity being

compared with the hydrolysis activity of the sample on a substrate with formula (I) in the absence of an activator buffer in accordance with claim 21.

32. (currently amended) A method according to claim 21~~any one of claims 21 to 28~~, characterized in that the carboxypeptidase is a CPU.

33. (original) A method according to claim 32, characterized in that the CPU is TAFI.

34. (currently amended) A method according to claim 28~~any one of claims 28 to 33~~, characterized in that the sample is treated in the presence and in the absence of a specific TAFI inhibitor.

35. (currently amended) A method according to claim 28~~any one of claims 28 to 34~~, characterized in that the specific TAFI inhibitor is CPI.

36. (original) A method for assaying activated TAFI in a blood sample, comprising the following steps:

- a) bringing a first aliquot of the sample into contact with a specific TAFI inhibitor and treating it using the method defined in claim 28;
- b) treating a second aliquot of the sample using the method of claim 28, in the absence of specific TAFI inhibitor;
- c) measuring the  $\Delta$  OD between the first and second aliquot, representative of the activity of the activated TAFI in the sample.

37. (original) A method according to claim 36 for differentiating between the activity of constitutional TAFI and that of activatable TAFI in the same sample, characterized in that the hydrolysis activity of a third aliquot of the sample is measured on a substrate with formula (I) in the absence of a buffer activator.

38. (cancelled)

39. (cancelled)

40. (currently amended) A kit for assaying the activity of a CPN or a CPU in a sample comprising a chromogenic substrate constituted by a compound according to claim 1~~any one of claims 1 to 11~~.
41. (currently amended) A kit for assaying the activity of TAFI in a biological sample, comprising:
- a TAFI activator buffer;
  - carboxypeptidase A;
  - a substrate with formula (I) according to claim 1~~any one of claims 1 to 11~~;
  - a TAFI inhibitor.